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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,885	07/28/2003	Robert P. Enns	1014-072US01 / JNP-0323	3864
28863	7590	02/10/2006	EXAMINER	
SHUMAKER & SIEFFERT, P. A. 8425 SEASONS PARKWAY SUITE 105 ST. PAUL, MN 55125			DAYE, CHELCIE L	
			ART UNIT	PAPER NUMBER
			2161	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/628,885	ENNS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Chelcie Daye	2161	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 and 36-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 19-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is issued in response to Application filed on July 28, 2003.
2. Claims 1-15 and 19-35 are pending. Claims 16-18 and 36-55 are withdrawn.
3. Claims 16-18 and 36-55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **with** traverse on January 26, 2006.

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15 and 19-35, drawn to a method for storing authorization data to specify a textual pattern, classified in class 707, subclass 6.
- II. Claims 16-18 and 36-55, drawn to a method for storing configuration data, classified in class 707, subclass 102.

Inventions I, and II, are related as combination and subcombinations.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particular subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination (I) as claimed for storing authorization data to specify a textual pattern does not require

subcombination (II) for storing configuration data as claimed because storing authorization data does not require also storing configuration data. Therefore, the inventions are distinct; however, they could be usable together.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for I is not required for II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

A telephone call was made to Kent Sieffert at (651) 735.1100 on January 30, 2006, 2005 to request an oral election to the above restriction requirement, applicant elects Group I with traverse.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the specification: Fig.5, item 88. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action

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to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

5. Claims 5,6,25, and 26 are objected to because of the following informalities: The term "course-grain" is misspelled within the claims as stated above. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-3,15,22-24, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Valois (US Patent Publication No. 2004/0260818).**

Regarding Claims 1 and 22, Valois discloses a method comprising:  
storing authorization data that defines an access control attribute ([0058], lines 4-10, Valois)<sup>1</sup> and an associated regular expression specifying a textual pattern ([0057], lines 4-9, Valois);  
evaluating a command using the regular expression to determine whether the command matches the textual pattern ([0064], lines 1-5, Valois)<sup>2</sup>; and  
controlling<sup>3</sup> access to configuration data of a device based on the evaluation ([0066], lines 1-9, Valois).

Regarding Claims 2 and 23, Valois discloses a method wherein controlling access comprises  
allowing access to the configuration data when the textual pattern of the regular expression matches the command ([0067], lines 1-4, Valois).

Regarding Claims 3 and 24, Valois discloses a method wherein controlling access comprises  
denying access to the configuration data when the textual pattern of the regular expression matches the command ([0067], lines 5-9, Valois).

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<sup>1</sup> Examiner Notes: Authorization data corresponds to "references" and the definition is an attribute that is part of the Access Control List (ACL).

<sup>2</sup> Examiner Notes: The process of evaluating correspond to "identifying and assessing". Also "the list of rules" corresponds to command.

<sup>3</sup> Examiner Notes: The act of controlling the access is done by the "validation engine", which extracts and compares the information to determine if there is a match or not.

Regarding Claims 15 and 35, Valois discloses a method wherein controlling access comprises controlling access to configuration data of a router ([0053], lines 6-10, Valois).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) as applied to claims 1-3,15,22-24, and 35 above, and further in view of Mitra (US Patent No. 6,973,460).**

Regarding Claim 4, Valois discloses a method for storing authorization data ([0058], lines 4-10, Valois). However, Valois does not explicitly disclose storing the authorization data as a class that conforms to a class syntax. On the other hand, Mitra discloses storing the authorization data as a class that conforms to a class syntax (column 8, lines 7-18, Mitra). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Mitra's teaching into the Valois system. A skilled artisan would have

been motivated to combine the two references as suggested by Mitra (column 7, lines 48-52), in order for the classes to be annotated such that, at run-time, useful information about how the data is organized for each of the various ways of storing the data (i.e. configuration) may be extracted from the annotations. As a result, this allows for various services to perform operations in accordance with the information.

**10. Claims 5-11 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) and further in view of Delany (US Patent Publication No. 2002/0156879).**

Regarding Claims 5 and 25, Valois discloses a method for the evaluation of the regular expression ([0064], lines 1-5, Valois). However, Valois does not explicitly disclose including a course-grain access control attribute within the authorization data that defines access control rights for respective groups of resources provided by the device, and controlling access to the configuration data, based on the course-grain access control attribute. On the other hand, Delany discloses including a course-grain access control attribute ([0118], lines 1-6, Delany) within the authorization data that defines access control rights for respective groups of resources provided by the device ([0161], lines 1-3, Delany), and controlling access to the configuration data, based on the course-grain access control attribute ([0118], lines 1-6, Delany). It would have been obvious to



one of ordinary skill in the art at the time of the invention to incorporate Delany's teachings into the Valois system. A skilled artisan would have been motivated to combine in order to achieve the level of detail at which the data would have been considered. Valois and Delany are analogous art because they are from the same field of endeavor of relating to a system that provides authorization compliance validation with a security policy. As a result, course-grain access provides higher performance through more optimized protocols and the data tends to work on contiguous regions at a time.

Regarding Claims 6 and 26, the combination of Valois in view of Delany, disclose a method wherein the course-grain access control attribute comprises a set of permission bits, and each of the permission bits is associated with a respective group of the resources ([0161], lines 3-5, Delany).

Regarding Claims 7 and 27, the combination of Valois in view of Delany, disclose a method further comprising receiving the command from a client via a command line interface ([0199], lines 2-11, Delany)<sup>4</sup>.

Regarding Claims 8 and 28, the combination of Valois in view of Delany, disclose a method wherein evaluating the command comprises evaluating the

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<sup>4</sup> Examiner Notes: Receiving the command from a client corresponds to "a user can request..." and the interface corresponds to "GUI".

command in real-time ([0383], lines 9-14, Delany) while the client inputs the command via the command line interface ([0199], lines 2-11, Delany).

Regarding Claims 9 and 29, the combination of Valois in view of Delany, disclose a method wherein the configuration data is arranged in the form of a multi-level configuration hierarchy having a plurality of objects (Fig.5, [0142], lines 1-2, Delany), and each of the objects represents a portion of the configuration data that relates to one or more resources of the device ([0142], lines 2-5, Delany).

Regarding Claims 10 and 30, the combination of Valois in view of Delany, disclose a method wherein the objects have respective textual labels ([0143], lines 1-4, Delany) and the regular expression defines the textual pattern to match the textual labels ([0057], lines 4-9, Valois) of a set of one or more of the objects within the configuration hierarchy (Fig.5, Delany).

Regarding Claims 11 and 31, the combination of Valois in view of Delany, disclose a method wherein evaluating the command comprises applying the regular expression to the command ([0099], lines 1-7, Valois) to determine whether the command specifies any of the objects within the set ([0142], lines 2-5, Delany).

**11. Claims 12-14,19-21, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) in view of Delany (US Patent Publication No. 2002/0156879) and further in view of Nelson (US Patent No. 6,243,713).**

Regarding Claims 12 and 32, the combination of Valois in view of Delany, disclose a method further comprising to automatically insert one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany) based on the hierarchical arrangement of the configuration data (Fig.5, Delany). However, Valois in view of Delany, do not explicitly disclose pre-processing the regular expression. On the other hand, Nelson discloses pre-processing the regular expression (column 10, lines 39-50, Nelson). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Nelson's teachings into the Valois in view of Delany system. A skilled artisan would have been motivated to combine the two references as suggested by Nelson (column 9, lines 60-65), in order to convert component data into a list of distinctive objects that represent the original data of the component, this is understood to perform data reduction. Pre-processing remove any non-essential information that does not substantially add to the quality of the system. As a result, pre-processing saves the system time and space for capacity.

Regarding Claims 13 and 33, the combination of Valois in view of Delany and further in view of Nelson, discloses a method further comprising:

receiving the command from a client via a command line interface ([0199], lines 2-11, Delany); and

pre-processing the regular expression (column 10, lines 39-50, Nelson) so that the command is evaluated with the regular expression in real-time ([0383], lines 9-14, Delany) as the client enters the command ([0199], lines 2-11, Delany).

Regarding Claims 14 and 34, the combination of Valois in view of Delany and further in view of Nelson, discloses a method wherein evaluating the command comprises evaluating the command with the pre-processed regular expression each time the client enters a token indicating a textual break within the command (column 17, lines 35-40, Nelson).

Regarding Claim 19, the combination of Valois in view of Delany and further in view of Nelson, discloses a method comprising:

receiving input ([0056], lines 3-7, Valois) defining an access control attribute ([0058], lines 4-10, Valois) and an associated regular expression that specifies a textual pattern ([0057], lines 4-9, Valois);

pre-processing the regular expression (column 10, lines 39-50, Nelson) to automatically insert one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany);

evaluating a command in real-time using the regular expression ([0383], lines 9-14, Delany) as a client enters the command via a command line interface ([0199], lines 2-11, Delany); and

controlling access to configuration data of a device based on the evaluation ([0066], lines 1-9, Valois).

Regarding Claim 20, the combination of Valois in view of Delany and further in view of Nelson, discloses a method further comprising storing the configuration data in the form of a multi-level configuration hierarchy having a plurality of objects (Fig.5, [0142], lines 1-2, Delany), wherein pre-processing the regular expression comprises automatically inserting one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany) based on the hierarchical arrangement of the configuration data (Fig.5, Delany).

Regarding Claim 21, the combination of Valois in view of Delany and further in view of Nelson, discloses a method wherein the regular expression defines a textual pattern that identifies one or more of the objects within the configuration hierarchy, and evaluating the command comprises:

applying the regular expression in real-time ([0383], lines 9-14, Delany) to determine whether a portion of the command that has been entered by the client matches the textual pattern ([0064], lines 1-5, Valois); and  
selectively allowing the client to complete the command based on the determination ([0199], lines 2-11, Delany).


***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye  
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February 2, 2006

  
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